

A new *Hexagonalia* (Brachyura, Xanthoidea, Trapeziidae), obligate commensal on Stylasteridae

Bella S. GALIL

Israel Oceanographic and Limnological Research, National Institute of Oceanography,
P. O. Box 8030, Haifa 31080 (Israel)

KEY WORDS

Trapeziidae,
Hexagonalia,
obligate commensal,
Stylasteridae,
Tikehau atoll.

ABSTRACT

A new species of *Hexagonalia* Galil, 1986 is described from Tikehau atoll, South-West Pacific. It is illustrated and compared with its only congener, *H. brucei* (Serène, 1973).

MOTS CLÉS

Trapeziidae,
Hexagonalia,
commensal obligatif,
Stylasteridae,
Tikehau atoll.

RÉSUMÉ

Une espèce nouvelle d'*Hexagonalia* Galil, 1986 est décrite de Tikehau atoll, dans le Pacifique Sud-Ouest. Elle est illustrée et comparée à l'espèce voisine *H. brucei* (Serène, 1973).

INTRODUCTION

The Institut français de recherche scientifique pour le développement en coopération (ORSTOM) has undertaken surveys of the Tuamotu Islands. Amongst these collections was a new species of *Hexagonalia*, a genus described for a stylasterid commensal (Galil 1986). The type and only known species, *H. brucei* (Serène, 1973), was described from the western Indian Ocean.

DESCRIPTION

Hexagonalia laboutei n.sp.
(Figs 1, 3)

MATERIAL EXAMINED. — **Tuamotu Island.** Tikehau atoll, reef outer face, 50-60 m, on *Stylaster* aff. *sanguineus*, 28.VIII.1984, coll. P. Laboute, 1 ♂ cw. (carapace width) 3.3 mm, holotype, (MNHN MP B.25284); 2 ovigerous ♀♀, cl. (carapace length) 4, 6 mm, paratypes (MNHN MP B.25285).

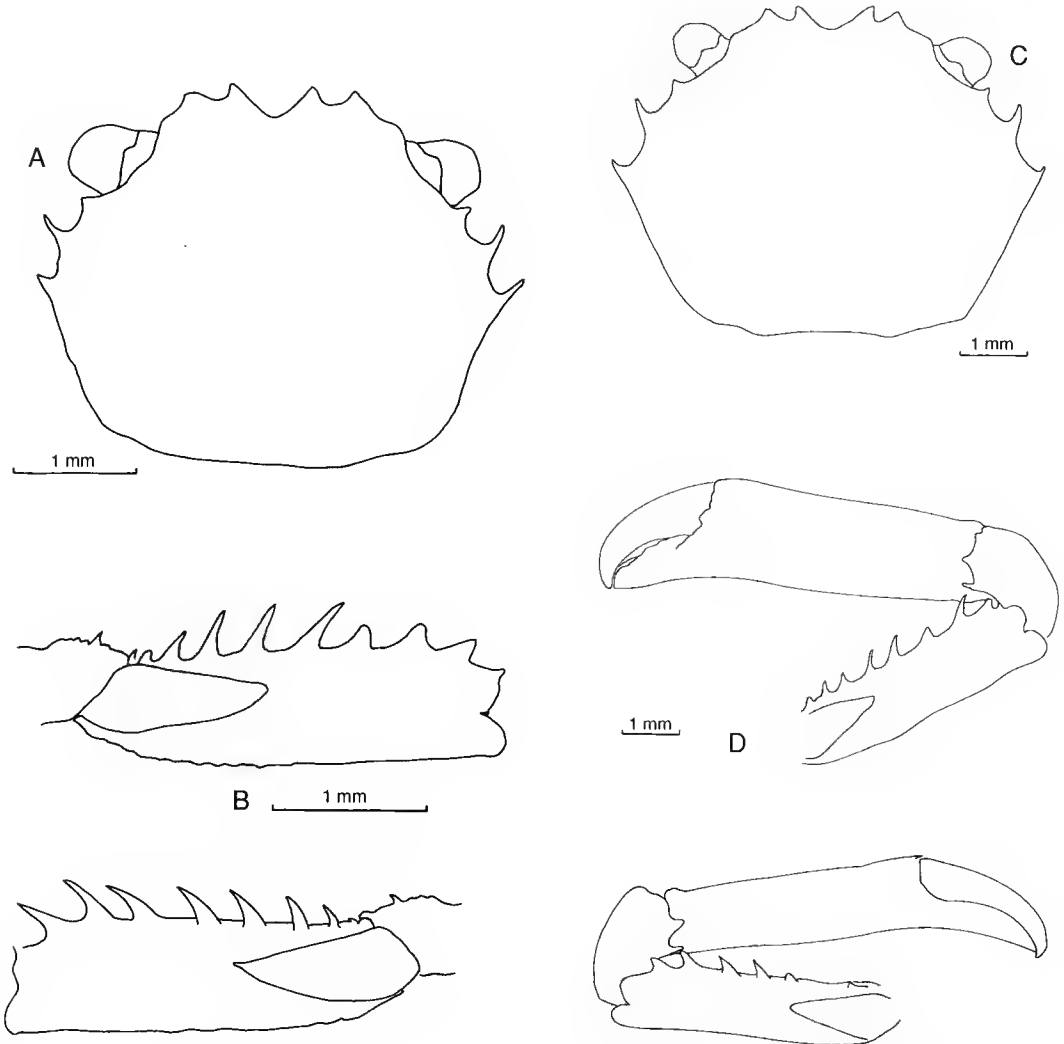


FIG. 1. — *Hexagonalia laboutei* n.sp., A-B, holotype ♂, Tikehau. A, carapace; B, chelipeds; C-D, paratype ♀, Tikehau. C, carapace; D, chelipeds.

ETYMOLOGY. — Named in honour of Mr. P. Laboute, who collected these specimens and many others for the benefit of science.

TYPE LOCALITY. — Tikehau, Tuamotu Islands, known only from the type locality.

DESCRIPTION

Carapace hexagonal, dorsal surface moderately convex, minutely punctate. Anterolateral margins of carapace oblique, bearing acute, slightly incurved, median, epibranchial teeth. Posterolateral margins longer than anterolateral, sloping diagonally. Front bilobed, bidentate lobes separated by wide

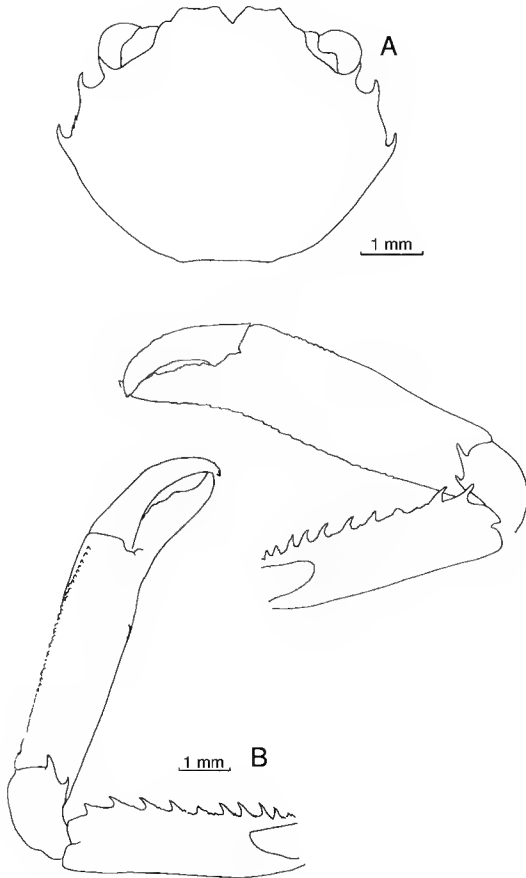


FIG. 2. — *Hexagonalia brucei* (Serène, 1973), holotype ♂, western Indian Ocean. A, carapace; B, chelipeds.

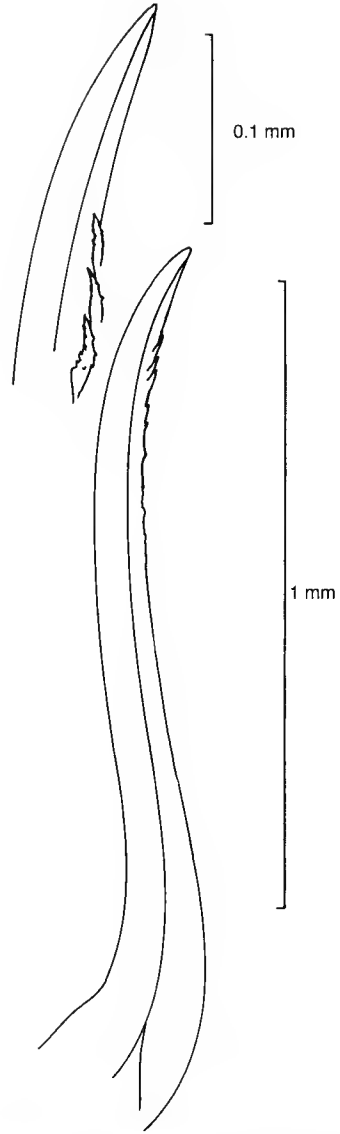


FIG. 3. — *Hexagonalia laboutei* n.sp., holotype ♂, Tikehau. First pleopod.

U-shaped emargination. Orbits occupying anterolateral angles. Eye with short stalk, large hemispherical cornea. Lower orbital margin concave, not extending to effaced superior orbital angle. Inferior orbital angle developed into acute tooth, tip visible beyond frontal margin. Postorbital angle acute, projecting outward.

Antennules folding transversely beneath front. Basal antennal segment lying within orbital

hiatus. Interantennular septum squat, trapezoid. Anterior margin of buccal frame minutely notched medially, arched at termination of efferent canals. External maxillipeds close-fitting. Exognath of external maxilliped columnar, tapering, not quite extending to distal angle of endognath, small rounded tooth on inner margin. Merus of endognath subquadrate, distal margin medially produced. Internal margins of both ischium and merus fringed with setae. Endognathal palp triarticulate, stocky, setose. Chelipeds subequal, minutely granulate, sparsely setose. Ischial anterior margin tuberculate, median tubercle most prominent. Merus as long as carapace, with eight curved spines anteriorly, increasing in size distally. Carpus globose, bispinose internally. Chela slender, subcylindrical, somewhat compressed, upper and lower margins indistinctly carinate. Fingers short, inner edge serrate. Ambulatory legs long, slender, setose. Double row of triangular teeth on posterior margin of dactyl, curved spines at their distal bases; strong curved apical tooth; corneous, curved spines distally on anterior surface. Thoracic sternum oval, first three sternites forming flattened ogival arch. Last abdominal segment much elongated. Male first pleopod

slightly sinuous, tapered, with pinnate appendages distally on inner margin.

Colour

Carapace and legs salmon-orange, similar in colour to the stylasterid host (P. Laboute, pers. comm.).

REMARKS

Hexagonalia laboutei may be distinguished by its bidentate frontal lobes separated by a U-shaped emargination, eight spines anteriorly on cheliped merus, and short pinnate appendages distally on male first pleopod. *H. brucei* (Serène, 1973) has its trapezoid frontal lobes separated by a V-shaped emargination (Fig. 2), eleven spines anteriorly on cheliped merus, and long pinnate appendages distally on male first pleopod.

REFERENCES

- Galil B. 1986. — *Quadrella* (Brachyura: Xanthoidea: Trapeziidae) - review and revision. *Journal of Crustacean Biology* 6(2): 275-293.
- Serène R. 1973. — Observations sur les espèces des genres *Quadrella* Dana, 1851 et *Sphenomerides* Rathbun, 1898 (Decapoda-Brachyura). *Bulletin de la Société zoologique de France* 98: 191-209.

*Submitted for publication on 28 May 1996;
accepted on 28 October 1996.*